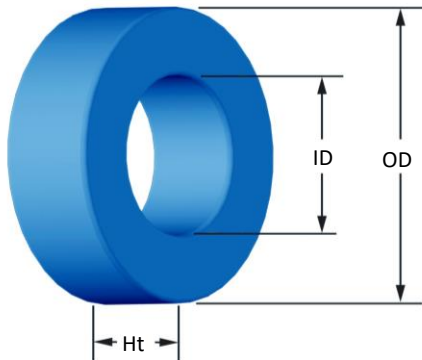




Part Number:

MS-038090-2

Revision 2021-Dec-01 - Generated 2021-Dec-01



(If coated, Max./Min. includes coating)

OD	(nom. - bare core) (max.)	9.65 mm 10.29 mm	0.380 in 0.405 in
ID	(nom. - bare core) (min.)	4.78 mm 4.27 mm	0.188 in 0.168 in
HT	(nom. - bare core) (max.)	3.96 mm 4.57 mm	0.156 in 0.180 in
Mass	(approximate)	1.2 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0945 cm ²	
	L _e - Eff. Mag. Path Length	2.18 cm	
	V _e - Eff. Core Volume	0.206 cm ³	
	WA - Min. Eff. Window Area	0.143 cm ²	
	sa - Surface Area	3.88 cm ²	
Inductance	μ _i (reference)	90	
	A _L value (nominal)	48 nH/N ²	
	Test Winding	N=45, #30 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.019 V	
Core Loss	AL tolerance	±12%	
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B _{pk} expressed in gauss, f expressed in hertz, and: a=7.890E+09, b=7.111E+08, c=8.980E+06, d=2.846E-14		
	B _{pk}	1000 G	
	frequency	50 kHz	
DC Saturation	Core Loss (nominal)	323 mW/cm ³	
	Core Loss (maximum)	372 mW/cm ³	
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.000E-02, b=3.994E-06, c=1.883, d=0.000		
	H _{DC}	50 Oe	
Coating/Pkg	Percent Initial Perm(nom.)	61.3%	
	Percent Initial Perm(min.)	52.9%	
	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
Winding Table	Limit	0.1 mA, 5 s	
	Package Quantity	10,800 Pcs/Box	
	Wire Size	AWG	20 22 24 26 28 30 32 34 36 38 40
	mm	0.800 0.630 0.500 0.400 0.315 0.250 0.200 0.160 0.125 0.100 0.080	
Single Layer	Turns	11 14 18 23 29 37 47 59 74 93 116	
	Rdc(Ω)	6.3 m 12.8 m 26.2 m 53.2 m 106.8 m 216.6 m 437.6 m 873.7 m 1.7 3.5 6.9	
Full Winding	Turns	10 16 25 38 59 92 142 219 339 525 813	
	Rdc(Ω)	5.8 m 14.6 m 36.4 m 88.0 m 217.2 m 538.6 m 1.3 3.2 8.0 19.7 48.4	

